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(54) Title: COMPACTION ROLLER

(57) Abstract

The invention concerns a soil compaction roller (10) and a soil compaction machine of which the roller (10) forms part. The roller (10) comprises a multi-sided, out-of-round, peripheral compacting surface (16) which can roll over a soil surface which is to be compacted. The compacting surface (16) is defined by a series of angularly spaced salient points (20) and a corresponding series of compacting faces (22). Each compacting face (22) is outwardly convex in shape and extends continuously between two adjacent salient points (20). When the roller (10) is operative with the compacting surface (16) rolling over the soil surface, the roller rises up on each salient point (20) in turn, storing potential energy, and thereafter rolls downwardly onto the succeeding compacting face (22) to transmit the stored potential energy to the soil surface to compact it. The instantaneous centre of rotation of the compacting surface (16), where it contacts the soil surface during rolling, moves continuously about substantially the full extent of the compacting surface.